

Substitute for Form PTO-1390		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER 033300-012	
<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371</b>				U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <b>10/ 550 460</b>	
INTERNATIONAL APPLICATION NO. PCT/EP2003/013670		INTERNATIONAL FILING DATE DECEMBER 4, 2003		PRIORITY DATE CLAIMED MARCH 31, 2003	
TITLE OF INVENTION  METHOD FOR IDENTIFYING THE ROTATION OF A STEPPER MOTOR DRIVING AT LEAST ONE HAND OF A CLOCK					
APPLICANT(S) FOR DO/EO/US 1) HANNA BRUMMACK, 2) WOLFRAM HODAPP					
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:					
1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission to items concerning a filing under 35 U.S.C. 371.					
2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.					
3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (22) indicated below.					
4. <input checked="" type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 31).					
5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))					
a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).					
b. <input checked="" type="checkbox"/> has been communicated by the International Bureau.					
c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).					
6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))					
a. <input checked="" type="checkbox"/> is attached hereto.					
b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).					
7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))					
a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).					
b. <input type="checkbox"/> have been communicated by the International Bureau.					
c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.					
d. <input type="checkbox"/> have not been made and will not be made.					
8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).					
9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).					
10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).					
Items 11 to 21 below concern document(s) or information included:					
11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.					
12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.					
13. <input checked="" type="checkbox"/> A FIRST preliminary amendment.					
14. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.					
15. <input checked="" type="checkbox"/> A substitute specification.					
16. <input type="checkbox"/> A change of power of attorney and/or address letter.					
17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 C.F.R. 1.821 - 1.825.					
18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4).					
19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).					
20. <input checked="" type="checkbox"/> Other items or information: <u>PUBLICATION WO 2004/088438</u>					
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U.S. APPLICATION NO. (If known, see 37 CFR 1.5)		INTERNATIONAL APPLICATION NO.		ATTORNEY'S DOCKET NUMBER	
<div style="font-size: 2em; font-weight: bold;">10/550460</div>		PCT/EP 2003/013670		033300-012	

21. ☒ Applicant(s) requests that the published application include the following assignment information: JUNGHANS UHREN GmbH, Schramberg, Germany

22. ☒ The following fees are submitted:

Basic Filing Fee (1631)				\$ 300.00	
Surcharge of <b>\$130.00 (1617)</b> for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).					
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total Claims	12	-20 =	0	x \$50.00 (1615)	\$ 0.00
Independent Claims	2	-3 =	0	x \$200.00 (1614)	\$ 0.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+ \$360.00 (1616)	
Examination Fee				+ \$200.00 (1633)	\$ 200.00
Search Fee				+ \$500.00 (1632)	\$ 500.00
App. Size Fee (add \$250.00 for each add'l 50 sheets exceeding 100 sheets)					
TOTAL OF ABOVE CALCULATIONS					\$ 1,000.00
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				+	\$ 0.00
				SUBTOTAL =	\$ 1,000.00
Processing fee of <b>\$130.00 (1618)</b> for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).					\$ 0.00
				TOTAL NATIONAL FEE =	\$ 1,000.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31): <b>\$40.00 (8021)</b> per property +					\$ 40.00
TOTAL FEES ENCLOSED =					\$ 1,040.00
				Amount to be refunded :	
				charged :	

a. ☒ A check in the amount of \$ 1,040.00 to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. 02-4800 in the amount of \_\_\_\_\_ to cover the above fees. A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 02-4800. A duplicate copy of this sheet is enclosed.


d. ☐ Charge \_\_\_\_\_ to credit card. Form PTO-2038 is attached.

**NOTE:** Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

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NAME

25,813      September 26, 2005

REGISTRATION NO.      DATE



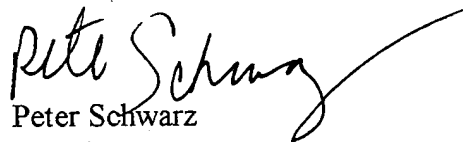
JC05 Rec'd PCT/PTO 26 SEP 2005

10/ 550460

CERTIFICATION

June 27, 2005

This is to certify that I am familiar with the German and English languages and that the attached English translation of the German PCT/EP2003/013670 is true and accurate to the best of my knowledge and belief.

  
Peter Schwarz  
Translator

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(81) Contracting states (national): CN, JP, US

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**Published:**

- with international search report

For explanation of the two-letter codes and other abbreviations, see the explanations at the beginning of each regular edition of the PCT Gazette ("Guidance Notes on Codes and Abbreviations")

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(54) Title: **METHOD FOR IDENTIFYING THE ROTATION OF A STEPPER MOTOR DRIVING AT LEAST ONE HAND OF A CLOCK**

(57) Abstract: The invention relates to a method for identifying the rotation of a stepper motor comprising a rotor provided with a motor coil and driving at least one hand of a clock. According to said method, a drive voltage pulse (1) and a first detection voltage pulse (3) are emitted from the motor coil, and the position of the rotor is determined on the basis of a first pulse response to the first detection voltage pulse (3). According to the invention, a second detection voltage pulse (4) with a polarity opposing that of the first detection voltage pulse (3) is emitted from the motor coil, and a second pulse response to the second detection voltage pulse (4) is also used to determine the position of the rotor. A stabilization voltage pulse (2) with a polarity opposing that of the drive voltage pulse (1) and preceding the first detection voltage pulse (3) can also be emitted from the motor coil.

**WO 2004/088438 A1**

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